

WHAT IS CLAIMED IS:

1. A software download system for downloading a communication software from a download center with which a communication apparatus is
5 connected via a communication line, wherein
the communication apparatus comprises:
a software storage unit which stores the communication software;
a request information generating unit which generates request information indicating at least a status of the communication apparatus by
10 recognizing the status of the communication apparatus;
a request information transmitting unit which transmits the request information to the download center;
a software receiving unit which receives the communication software transmitted from the download center;
15 a software rewrite control unit which rewrites contents of the software storage unit with the received communication software; and
a communication unit which executes the stored communication software, and
the download center comprises:
20 a software accumulating unit which accumulates different kinds of communication software;
a request information receiving unit which receives the request information of the communication apparatus;
a software selecting unit which selects a suitable communication
25 software from the software accumulating unit in accordance with the received request information; and
a software transmitting unit which transmits the selected

communication software to the communication apparatus.

2. The software download system according to claim 1, wherein
the communication unit has a function of receiving broadcast, and
5 the communication software is a receiving software.

3. The software download system according to claim 2, wherein
the communication unit has a function of receiving different kinds of
broadcast, and

10 the communication apparatus further comprises a received broadcast
switching unit which switches the kind of broadcast received by the
communication unit.

4. The software download system according to claim 1, wherein
15 the communication unit has a function of the mobile communication
apparatus.

5. The software download system according to claim 1, wherein
the communication apparatus further comprises a request
20 information transmission judging unit which judges whether or not the
request information should be transmitted to the download center.

6. The software download system according to claim 1, wherein
the download center further comprises a software transmission
25 judging unit which judges whether or not the selected communication
software should be transmitted to the communication apparatus.

7. The software download system according to claim 1, wherein
the communication apparatus further comprises a position
information acquiring unit which acquires a position information of the
communication apparatus, and
5 the request information generating unit makes the request
information include the position information, and wherein
the download center further comprises a community information
database, and
the software selecting unit refers to the community information
10 database based on the position information included in the request
information and selects a suitable communication software in consideration
of a communication environment based on the position of the
communication apparatus.

15 8. A communication apparatus comprises:
a software storage unit which stores communication software;
a request information generating unit which generates request
information indicating at least a status of the communication apparatus by
recognizing the status of the communication apparatus;
20 a request information transmitting unit which transmits the request
information to a download center;
a software receiving unit which receives the communication software
transmitted from the download center;
a software rewrite control unit which rewrites contents of the software
25 storage unit with the received communication software; and
a communication unit which executes the stored communication
software.

9. The communication apparatus according to claim 8, wherein
the communication unit has a function of receiving broadcast, and
the communication software is a receiving software.

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10. The communication apparatus according to claim 9, wherein
the communication unit has a function of receiving different kinds of
broadcast, and

the communication apparatus further comprises a received broadcast
10 switching unit which switches the kind of broadcast received by the
communication unit.

11. The communication apparatus according to claim 8, wherein
the request information generating unit generates request
15 information to make a request for communication software with a high
precision of arithmetical operation that can receive a receiving signal at
excellent sensitivity, when the power level of the receiving signal is different
from the supposed power level for the current communication software.

20 12. The communication apparatus according to claim 8, wherein
the request information generating unit generates request
information to make a request for communication software with the high
synchronizing performance, when the receiving signal is likely to be out of
synchronization.

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13. The communication apparatus according to claim 8, wherein
the request information generating unit generates request

information to make a request for communication software optimal to a unique information, when the unique information for the receiving signal is obtained.

- 5 14. The communication apparatus according to claim 8, wherein
 the request information generating unit generates request
information to make a request for communication software suitable for
removal of the multipath, when the multipath disturbance is recognized.
- 10 15. The communication apparatus according to claim 8, wherein
 the request information generating unit generates request
information to make a request for communication software with a higher
ability of correcting errors, when the receiving signal has a high Bit Error
Rate.
- 15 16. The communication apparatus according to claim 8, wherein
 the request information generating unit generates request
information to make a request for communication software with a decoding
program suitable for a multiple signal, when the information indicating that
20 the receiving signal is the multiple signal is obtained.
17. The communication apparatus according to claim 8, further
comprising a position information acquiring unit which acquires position
information of the communication apparatus, wherein
25 the request information generating unit generates request
information including the position information.

18. The communication apparatus according to claim 10, wherein
the request information generating unit generates request
information to make a request for communication software adaptable to the
broadcast to be received, when the received broadcast switching unit
5 switches the received broadcast.
19. The communication apparatus according to claim 10, wherein
the request information generating unit generates request
information to make a request for communication software for receiving data
10 broadcasting at the same time, when the communication unit has a small
amount of signal processing for receiving broadcast.
20. The communication apparatus according to claim 8, further
comprising a request information transmission judging unit which judges
15 whether or not the request information should be transmitted to the
download center.
21. The communication apparatus according to claim 20, wherein
the request information transmission judging unit judges whether or
20 not the status of the communication apparatus is adaptable to the current
communication software based on the generated request information.
22. The communication apparatus according to claim 8, wherein
the request information includes software information of the current
25 communication software of the communication apparatus.
23. The communication apparatus according to claim 8, wherein

the communication apparatus has a function of a mobile communication apparatus.

24. A download center comprises:

5 a software accumulating unit which accumulates different kinds of communication software;

a request information receiving unit which receives request information of a communication apparatus;

10 a software selecting unit which selects a suitable communication software from the software accumulating unit in accordance with the received request information; and

a software transmitting unit which transmits the selected communication software to the communication apparatus.

15 25. The download center according to claim 24, wherein

the download center further comprises a software transmission judging unit which judges whether or not the selected communication software should be transmitted to the communication apparatus.

20 26. The download center according to claim 25, wherein

the software transmission judging unit recognized the software information of the current communication software of the communication apparatus based on the received request information, and

25 the software transmission unit transmits the selected communication software to the communication apparatus, when the selected communication software is judged to be different from the communication software installed in the communication apparatus.

27. The download center according to claim 24, wherein
the download center further comprises a community information
database,

5 the software selecting unit refers to the community information
database based on the position information of the communication apparatus
included in the received request information, and selects a suitable
communication software in consideration of the communication environment
based on the position of the communication apparatus.

10 28. An information recording medium on which a communication
program is recorded so as to be readable through a computer which is
contained in a communication apparatus with a pre-installed re-writable
recording medium, and which causes the computer to function as:

15 a software storage unit which stores a communication software;
a request information generating unit which generates request
information indicating at least a status of the communication apparatus by
recognizing the status of the communication apparatus;

20 a request information transmitting unit which transmits the request
information to a download center;

a software receiving unit which receives the communication software
transmitted from the download center;

a software rewrite control unit which rewrites contents of the software
storage unit with the received communication software; and

25 a communication unit which executes the stored communication
software.

29. The information recording medium according to claim 28, wherein
the communication apparatus does not perform the operation other
than rewriting the communication software, while the communication
apparatus is rewriting contents of the software storage unit with the received
5 communication software.

30. A communication apparatus comprises:

a software storage unit which stores different kinds of communication
software;

10 a request information generating unit which generates request
information indicating at least a status of the communication apparatus by
recognizing the status of the communication apparatus;

a software selecting unit which selects communication software
suitable for the status of the communication apparatus from the software
15 storage unit based on the generated request information; and

a communication unit which executes the selected communication
software.

31. An information recording medium on which a communication
20 program is recorded so as to be readable through a computer which is
contained in a communication apparatus with a pre-installed re-writable
recording medium, and which causes the computer to function as:

a software storage unit which stores different kinds of communication
software;

25 a request information generating unit which generates request
information indicating at least a status of the communication apparatus by
recognizing the status of the communication apparatus;

a software selecting unit which selects communication software suitable for the status of the communication apparatus from the software storage unit based on the generated request information; and

5 a communication unit which executes the selected communication software.